REMARKS

Claims 1-15 are present in the application. Applicant would like to thank the Examiner for indicating allowable subject matter in claim 9.

Claims 1-8 and 10-15 are rejected as anticipated by HASEGAWA et al. 6,383,907. This rejection is respectfully traversed.

Claim 1 of the present application recites a semiconductor device wherein a Cu diffusion preventive insulating layer has a multilayered structure made of not less than two layers.

By way of example, page 9, lines 11-25 of the present application disclose that as shown in Figure 2E, by using a single-wafer type parallel-plate CVD apparatus, a diffusion preventive insulating layer SiN as a first insulating film 16 is formed to a thickness of 20 nm by low-temperature film formation with a film formation temperature of 300°C, an SiH_4 flow rate of 50 sccm, an NH_3 flow rate of 30 sccm, an N_2 flow rate of 2,000 sccm, a film formation pressure of 4 Torr, and an RF power of 400 W. After that, by using another film formation chamber, a diffusion preventive insulating layer SiN as a second insulating film 18 is formed to a thickness of 30 nm by high-temperature film formation with a film formation temperature of 400°C, an SiH_4 flow rate of 50 sccm, an NH_3 flow rate of 30 sccm, an N_2 flow rate of 2,000 sccm, a film formation pressure of 4 Torr, and an RF

power of 400 W. Accordingly, both layers 16 and 18 are Cu diffusion preventive insulating layers as part of a multilayered Cu diffusion preventive insulating layer structure.

In contrast, HASEGAWA et al. as seen in Figure 1A, for example, disclose a single diffusion preventive layer 54. As noted in the Official Action, layer 12 is a silicon dioxide insulating layer and is not a Cu diffusion preventive layer. Claim 1 of the present application recites that the Cu diffusion preventive layer is itself a multilayered structure. HASEGAWA et al. do not disclose or suggest this feature. Accordingly, the anticipation rejection is not viable and withdrawal of the rejection is respectfully requested.

Claims 2-8 depend from claim 1 and further define the invention and also are believed patentable over the cited prior art.

Claim 10 recites the step of forming at least two stacked Cu diffusion preventive insulating layers as a Cu diffusion preventive layer. The comments above regarding claim 1 are equally applicable to claim 10.

Claims 11-15 depend from claim 10 and further define the invention and also are believed patentable over the cited prior art.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been

placed in condition for allowance. Reconsideration and allowance are respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Page 2, the paragraph beginning on line 17 has been amended as follows:

--When Cu is used as the interconnection material, since it is difficult to micropattern Cu by dry etching, a damascene interconnection structure as shown in Fig. 1 is usually used widely. A damascene interconnection is formed in the following manner. A trench [20] is formed in an interlevel film 6, and is filled with a barrier metal 10 and Cu. Excessive Cu and barrier metal on the insulating film are removed by CMP, thus forming a Cu interconnection 12.--